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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,679	12/06/2000	Nabil Khalifa	PHF 99, 618	8828
24737	7590	12/28/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			WILSON, ROBERT W	
			ART UNIT	PAPER NUMBER
			2661	
DATE MAILED: 12/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/730,679	Applicant(s) KHALIFA ET AL.	
	Examiner Robert W. Wilson	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Objections***

1. Claims 1-4, 5-15 & 21-22 are objected to because of the following informalities:

Referring to claim 1 & 4, the examiner objections to the phrase "at least a station of a first type and a station of a second type which includes a transmitting part having a transmit timing controller for transmitting data at a transmit timing and a receiving part having synchronizing circuits for synchronization... This run on sentence confuses the reader to whether both the first type station and the second have a transmit timing controller and receiving part" or only the first type of station has the transmit timing controller and a receiving part. The applicant needs to amend the claim to clarify

Referring to claim 21, the examiner objects to "said mobile communication terminal" when the examiner believes that the applicant is referring back to a "further terminal". The examiner suggests replacing "said mobile communication terminal" with "said further terminal"

Appropriate correction is required.

2. Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Referring to claim 22, claim 21 already comprises a mobile terminal and a further mobile terminal which already is a system.

***Drawings***

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because they are not of sufficient quality to be in a published patent.. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. Claims 1-4 & 6-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Referring to claims 1 & 4 the disclosure fails to define a “different station types”. Is a “different station type” a third type of station or is it a different “type 1 station “ or different “type 2 station”?

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 21-22 are rejected under 35 U.S.C. 102(B) as being anticipated by Sickles (U.S. Patent No.; 3,940,695)

Referring to claim 21, Sickles teaches: a first station or mobile communication terminal which has input means for receiving or a receiver which receives a signal from the remote station or further terminal. The first station has an inherent transmitter which sends a signal which has been corrected for doppler per col. 2 lines 21-46. Correction for Doppler inherently requires that the frequency shift change be shifted in the opposite direction which is in the opposite direction due to the frequency change associated with movement.

In addition Sickles teaches:

Regarding claim 22, the first station or mobile communication terminal is a part of the transmission system per co. 2 lines 21-46.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4 & 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ejzak (U.S. Patent No.; 6,389,066) in view of Agarwal (U.S. Patent No.: 6,529,485) further in view of Rouse (U.S. Patent No.: 4,561,089)

Referring to claim 1, Ejzak teaches: Fig 2 shows a transmission system which has a base station or station of a first type and a mobile station or station of the 2<sup>nd</sup> type. The applicant broadly

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claims "different station types". The base station has an adaptive rate transmitter which is a controller for transmitting data at timing rate and an adaptive rate receiving part which receives signal from the mobile stations or different stations which are inherently a part of the system.

Any movement of a mobile station in the system relative to the base station inherently results in Doppler frequency shift or a frequency shift.

Ejzak does not expressly call for: transmit timing is fixed in response to the receive timing or a synchronization circuit that provides chip fractions shifted in time that are used to modify frequencies of data received.

Rouse teaches: transmit timing fixed with respect to receive by the system clock per col. 7 lines 43-67. The reference also teaches a receiver which has a sync circuit 100 per Fig 1 which has an input 102 per Fig 1. The receiving part adjusts to fractions of a chip per col. 9 lines 44-57 or per col. 23 line 6-coll 24 line 44 or per Figs 20a, 20b, 22a, 22b, & 23. Also the reference teaches adjusting the heterodyne frequency to shift the signal to baseband per col. 7 lines 26-62 or modifies the frequency.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the synchronization by adjusting via chip fractions of Rouse to the to the base station of Ejzak in to modify frequencies of data received in order to perform rate adaptation.

Referring to claim 2, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 1, as well as a station of the first type where the receiving part comprising a synchronizing circuit for determining the receiving timing of a plurality of stations of the second type

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The combination of Ejzak and Rouse does not expressly call for: synchronizing circuits of the station of the first type interoperable to all station of the second type

Rouse teaches: a synchronizing circuits per Figs 11 & 21

It would have been obvious to one of ordinary skill in the art at the time of the invention that the sync circuits are interoperable in order for the receivers to receive the signals which are transmitted or for the invention to work.

Referring to claim 3, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 1

The combination of Ejzak and Rouse does not expressly call for: evaluate and modify the frequency shift.

Rouse teaches: a synchronizing circuits which evaluate and modify the frequency per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the sync circuits evaluate and modify the frequency shift in order for the signals which have been transmitted to be received or for the invention to work.

Referring to claim 6, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 1

The combination of Ejzak and Rouse does not expressly call for: sync provides first output satisfactory sync.

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The applicant broadly claims “first output satisfactory sync” Rouse teaches: a synchronizing circuits provide first sync output which is satisfactory in order to receive signals per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the sync circuits provide first output satisfactory in order for the receiver to receive a signal which have been transmitted to be received or for the invention to work.

Referring to claim 7, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 6

The combination of Ejzak and Rouse does not expressly call for: synchronization circuit provides chip fractions shifted in time produces an already produced chip fraction output that contains chip fraction previously produced at the first output.

Rouse teaches: a synchronizing circuits provide first sync output in which iterative processing occurs or contains chip fraction previously produced at the first output per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the iterative processing utilizes chip fractions previously produced in order to determine the first output.

Referring to claim 8, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 7



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The combination of Ejzak and Rouse does not expressly call for: a synchronization circuit that provides chip fractions shifted in time produces an output that contains chip fraction previously produced at the first output.

Rouse teaches: a synchronizing circuit provides first sync output in which iterative processing occurs or contains chip fraction recently produced at the first output per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the iterative processing utilizes chip fractions recently produced in order to determine the first output.

Referring to claim 9, the combination of Ejzak and Rouse teaches: A transmission system as claimed in claim 8

The combination of Ejzak and Rouse does not expressly call for: a synchronization circuit that performs analysis for frequency drift..

Rouse teaches: a synchronization circuit that performs analysis for frequency drift per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the sync circuit of Rouse to the system of the combination of Ejzak and Rouse in order to build a system which receives signals which have drifted in frequency.

Referring to claim 10, the combination of Ejzak and Rouse teaches: A transmission system as claimed in claim 9

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The combination of Ejzak and Rouse does not expressly call for: modifying said transmit clock frequency in response to drift.

Rouse teaches: synchronization circuit that modifies said transmit clock frequency in response to drift. per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the sync circuit of Rouse to the system of the combination of Ejzak and Rouse in order to build a system which receives signals which have drifted in frequency.

Referring to claim 4, Ejzak teaches: Fig 2 shows a transmission system with a base station or station of a first type and a mobile station or station of the 2<sup>nd</sup> type. The applicant broadly claims "different station types". The base station has an adaptive rate transmitter which is a controller for transmitting data at timing rate and an adaptive rate receiving part which inherently receives data as well as synchronization signal from the mobile stations or different stations. Both the base station and mobile station of station of the 2 and 1<sup>st</sup> type all share the same kind of receiving circuit. Any movement of a mobile station in the system relative to the base station inherently results in Doppler frequency shift or a frequency shift.

Ejzak does not expressly call for: sync circuit which adjusts by chip fractions in order to receive signals in the receiving part but teaches receiving part that adapts the rate per Fig 2.

Rouse teaches: a receiver which has a sync circuit 100 per Fig 1 which has an input 102 per Fig 1. The receiving part adjusts to fractions of a chip per col. 9 lines 44-57 or per col. 23 line 6-coll 24 line 44 or per Figs 20a, 20b, 22a, 22b, & 23. Also the reference teaches adjusting the heterodyne frequency to shift the signal to baseband per col. 7 lines 26-62 or modifies the

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frequency or synchronization circuit that provides chip fractions shifted in time that are used to modify frequencies of data received.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the synchronization by adjusting via chip fractions of Rouse to the to the base station of Ejzak in to modify frequencies of data received in order to perform rate adaptation.

Referring to claim 11, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 4

The combination of Ejzak and Rouse does not expressly call for: sync provides first output satisfactory sync.

The applicant broadly claims “first output satisfactory sync” Rouse teaches: a synchronizing circuits provide first sync output which is satisfactory in order to receive signals per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the sync circuits provide first output satisfactory in order for the receiver to receive a signal which have been transmitted to be received or for the invention to work.

Referring to claim 12, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 11

The combination of Ejzak and Rouse does not expressly call for: synchronization circuit provides chip fractions shifted in time produces an already produced chip fraction output that contains chip fraction previously produced at the first output.

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Rouse teaches: a synchronizing circuits provide first sync output in which iterative processing occurs or contains chip fraction previously produced at the first output per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the iterative processing utilizes chip fractions previously produced in order to determine the first output.

Referring to claim 13, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 12

The combination of Ejzak and Rouse does not expressly call for: synchronization circuit provides chip fractions shifted in time produces an recently produced chip fraction output that contains chip fraction previously produced at the first output.

Rouse teaches: a synchronizing circuits provide first sync output in which iterative processing occurs or contains chip fraction recently produced at the first output per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that the iterative processing utilizes chip fractions recently produced in order to determine the first output.

Referring to claim 14, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 13

The combination of Ejzak and Rouse does not expressly call for: synchronization circuit that performs analysis for frequency drift..

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Rouse teaches: synchronization circuit that performs analysis for frequency drift per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the sync circuit of Rouse to the system of the combination of Ejzak and Rouse in order to build a system which receives signals which have drifted in frequency.

Referring to claim 15, the combination of Ejzak and Rouse teach: A transmission system as claimed in claim 14

The combination of Ejzak and Rouse does not expressly call for: modifying said transmit clock frequency in response to drift.

Rouse teaches: synchronization circuit that modifies said transmit clock frequency in response to drift. per Figs 11 & 21 and per col. 7 lines 25-62

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the sync circuit of Rouse to the system of the combination of Ejzak and Rouse in order to build a system which receives signals which have drifted in frequency.

***Allowable Subject Matter***

9. Claims 5 & 16-20 are allowed.

The closest prior art is Agarwal (U.S. Patent No.: 6,529,485) and Rouse (U.S. Patent No.: 4,561,089). Agarwal teaches measuring clock deviation between a local clock and a received clock sync signal and a RTC or Doppler correction signal which is used to compensate for the

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movement of the Satellite or type 2 station relative to the terminal which is a type 1 station.

Rouse teaches correction for chip fractions.

The following is an Examiner's statement of reasons for allowance:

Claims 5 & 16-20 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims including 5, as specified in claim “”adjusting a transmit clock at the station of the second type by adopting the opposite deviation value to compensate for a frequency shift due to a movement of the station of the second type.

#### ***Response to Amendment***

10. Applicant's arguments filed 1-22 have been fully considered but they are not persuasive. The examiner respectfully disagrees with the applicant argument specification does not need to be redone in the format recommended by the patent office because the format is optional. The applicant specification has no headings which will cause problems with publication if this patent becomes allowable. The examiner strongly recommends adding headings.

The examiner respectfully disagrees that the hand drawn labels on figures 1-4 which were submitted as revised drawing changes make the drawings of sufficient quality to be a publishable patent if this patent is allowed.

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The examiner respectfully disagrees with the applicant's argument that all 112 first paragraph issues have been resolved. The applicant never cited where the written description for "different station types" is recited.

The examiner respectfully disagrees with the applicant's argument "to compensate for frequency shift due to movement of said station of said second type" is not taught by the references.

The reference Ezjak teaches a mobile and a base station. The base station has an adaptive rate transmitter which is a controller for transmitting data at timing rate and an adaptive rate receiving part which receives signal from the mobile stations or different stations which are inherently a part of the system. Any movement of a mobile station in the system relative to the base station inherently results in Doppler frequency shift or a frequency shift which it would have been obvious to one of ordinary skill in the art must be adjusted for in order for the invention to work.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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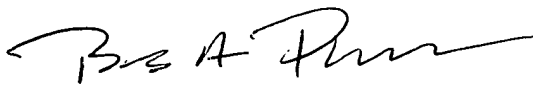
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

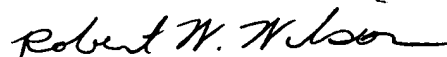
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571/272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**BOB PHUNKULH  
PRIMARY EXAMINER**

RWW  
12/23/05



**Robert W Wilson  
Examiner  
Art Unit 2661**